

## BIBLIOGRAPHY

C. FITZHUGH TALMAN, *in Charge of Library*

## RECENT ADDITIONS

The following have been selected from among the titles of books recently received as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies:

## American national red cross.

- The Colorado flood of May 30, 1935. Wash. 1935. 10 p. ill. 23 cm.  
 The dust area welfare program of 1935. Wash. 1935. 13 p. ill. 23 cm.  
 Florida hurricane of September 2, 1935. Wash. 1935. [7 p.] ill. 23 cm.  
 The Mississippi and Louisiana tornadoes. Spring of 1935. Wash. 1935. 11 p. ill. 23 cm.  
 Mississippi-Tennessee and Louisiana floods. Spring of 1935. Wash. 1935. 7 p. 23 cm.  
 Southern New York floods. Wash. 1935. 11 p. ill. 23 cm.

## Bailey, Reed W., and others.

- Floods and accelerated erosion in northern Utah. Wash. 1934. 22 p. ill. 23½ cm. (U. S. Dept. of agric. Miscellaneous pubn. no. 196.)

## Bartnicki, L.

- Prady powietrzne dolne w Polsce. (Les courants atmosphériques en Pologne.) Varsovie. 1930. 100 p. maps, charts, tables. 12 pl. (maps). (Résumé français, p. 37.)

## Bouet, Max.

- Un cas d'oscillation d'une couche d'inversion de température. Lausanne. 1934. p. 165-172. figs. 23½ cm. (Bull. de la Société vaudoise des sciences naturelles. v. 58, no. 234, 1934.)

## Chelyuskin expedition, 1933-1934.

- The voyage of the Chelyuskin, by members of the expedition; translated by Alec Brown; with numerous plates and maps. New York. 1935. xii, 325 p. front., illus., plates, ports., maps (1 double). 24 cm. O. I. Schmidt, leader of the expedition.

## Cheney, William.

- Meteorological statistics. Minneapolis. 1885. p. 422-435. tables. 23½ cm. (Extr.: Bull. of the Minnesota acad. of natural sciences. 1880-1882. v. II, no. 5. June, 1885.)

## Daly, Reginald Aldworth.

- The changing world of the ice age. New Haven & London. 1934. 271 p. illus. (incl. maps), plates, diagrs. 24 cm. (Half-title: Yale University. Mrs. Hepsa Ely Silliman memorial lectures [1934]). Bibliographical foot-notes.

## Gherzi, Ernest.

- Atlas thermométrique de la Chine. Shanghai. 1934. n. p. plates (maps). 24½ cm. (Obs. de Zikawei.)

## Gonzalez P., Epifanio.

- Compendio de instrucciones sobre meteorología e aerología. Bogotá. Noviembre 1934. 82 p. ill., pls., map (fold.), tab., charts, diagrs. 23½ cm. (Repúb. de Colombia. Minist. de guerra. Dirección general de aviación. Sección de aerología.)

## Gorczyński, Wł.

- O systemie dziesiętnym podziału klimatów kuli ziemskiej z zastosowaniem do Europy. (Decimal scheme of world's climates with adaptation to Europe.) Warszawa. 1934. 12 p., pl., maps, (some fold.), tables. 24 cm. (Comptes rendus des séances de la Société des sc. et des lettres de Varsovie XXVII. 1934. Classe III.)

- O związku między promieniowaniem rozproszonym nieba i stopniem usłonecznienia. (Interdependence between the amount of diffuse sky radiation and the duration of sunshine.) Warszawa. 1934. p. 32-44. tables. 24 cm. (Compt. rend. séances Soc. d. sc. et d. lettres de Varsovie XXVII. 1934. Classe III.)

## Guardiola, Jose M. Jansa.

- Notas para una climatología de Menorca. Régimen de vientos. Madrid. 1934. 58 p. tables, diagrs. 24 cm. (Serv. met. español. Serie A, núm. 4.)

## Hall, C. W.

- An account of the tornado which visited Saint Cloud, Minnesota, April 14, 1886. Minneapolis. 1889. p. 155-[160]. 23½ cm. (Extr.: Bull. Minn. acad. of natural sciences, v. III, no. 1. 1889.)

## [Royal aeronautical society. Council.]

- Handbook of aeronautics. 2d enl. ed., 1934. London. 2 v. illus., tables, diagrs. 23 cm. General editor: C. G. Burge. Includes bibliographies.

## Hawks, Ellison.

- The book of air and water wonders. London. [1933.] 271 p. front., illus., XXX pl. on 15 diagrs. 21½ cm.

## Hodes, Franz.

- Die Überschwemmungen im Elbe-Oder-Gebiet (1901-1925). Würzburg. 1934. 92 p. illus., tables. 21 cm. (Inaug.-Diss. Johann Wolfgang Goethe-Universität.)

## Hubbard, Bernard Rosecrans.

- Cradle of the storms, illus. from photographs taken by the author. New York. 1935. xv, 285 p. front., plates, ports. maps. 22½ cm. Maps on lining-papers.

## Iyer, V. Doraiswamy.

- Rainfall of Siam. Its normal distribution and relation to Indian rainfall; possibility of forecasting monsoon rains. Calcutta. 1931. p. 69-85. 5 pl. (incl. maps), tables. 26 cm. (India. Met. dept. Scient. notes. v. 4, no. 38.)

## Knudson, Vern O.

- The absorption of sound in air, in oxygen, and in nitrogen—effects of humidity and temperature. 1933. p. 112-121. figs., tables. 27½ cm. (Acoustical socy. of amer. Jnl. v. 5. Oct., 1933.)

## Los Angeles flood control district.

- Rainfall and runoff report. Seasons 1932-1933 and 1933-1934. June 1, 1935. Los Angeles. 356 p. maps (fold.), tables, diagrs. 27½ cm.

## Nigeria. Surveyor-general.

- Meteorological observations in Nigeria during the polar year 1932-1933. Lagos. 1934. 95 p. maps (fold.), tables, graphs (fold.).

## Östman, C. J.

- Vinden i sveriges högre luftslager. Resultat av pilotballong-observationer utförda under åren 1919-1929. Stockholm. 1933. 38 p. map, tab., diagr. 31 cm. (Meddelanden från Statens meteor.-hydrograf. anstalt. Band 6. N:o 3.)

## Pekeris, Chaim L.

- On the interpretation of the Umkehr-effect in atmospheric ozone measurements. Oslo. 1934. 31 p. tables, diagrs. 24 cm. (Avhandlinger utgitt av det Norske videnskaps-akademie i Oslo. 1. Matem.-naturvid. Klasse. 1933. No. 8.)

## Poisson, Ch.

- Sur la variabilité des pluies à Tananarive. Tananarive. 1934. 5 p. & 2 fold. plates. 27 cm. (Pub. du Serv. mét. de Madagascar. N° 4. Aout 1934. Extrait du Bull. écon. mensuel.)

## Portères, Roland.

- Sur un indice de sécheresse dans les régions tropicales forestières. Indices en Côte d'Ivoire. Paris. 1934. p. 653-665. tables. 25½ cm. (Bulletin du Comité d'études historiques et scientifiques de l'Afrique occidentale française. Tome XVI, no. 4. Octobre-décembre 1934.)

## Reja, Oskar.

- Navali hladnega in toplega zraka v Dravsko banovino. (Les invasions d'air froid et d'air chaud dans le banat de la Drave.) Ljubljana. 1934. p. 66-88. figs., tables. 26 cm. (Prosebni odtis iz "Geografskega vestnika" Letnik X. 1934.)

## Roux, Georges.

- Mémoire annuel consacré à la physique du globe et à la météorologie au Maroc. 1932. Rabat: Paris: London. 1934. 93 p. tables, diagrs. 25½ cm. (Mémoires de la Société des sciences naturelles du Maroc. No. XXXIX. 31 juillet 1934.)

Russia. Central institute of the experimental hydrology and meteorology.

Proceedings. v. 1. (43). Moscow. 1934. 21½ cm.

Strohm, Hans.

Untersuchungen zur Entwicklungsgeschichte der aristotelischen Meteorologie, Leipzig. 1935. 84 p. 23½ cm. (Philologus, Supplementband XXVIII, Hft. 1). (Dissertation.)

U. S. Dept. of agriculture.

Studies of rainfall distribution in Puerto Rico. Averages for 20 or more years. Compiled and graphed in 14-day periods by the U. S. department of agriculture. Compilations and graphs: The experiment station, U. S. D. A. Records by: The weather bureau, U. S. D. A. Pubn. by the Puerto Rico emergency relief administration. 1935. [44 p.] blue prints. 33½ x 40 cm.

U. S. National advisory committee for aeronautics.

Hazards to aircraft due to electrical phenomena. Report of Special committee on hazards to aircraft due to electrical phenomena. Wash. 1934. 6 p. 26½ cm. (Technical notes no. 494.)

Waldron, L. R.

Can trees reclaim weather? [Phila., Pa. 1934.] p. 15-16; 37-39. ill. 35 cm. (Country gentleman. Nov., 1934.)

Wegener, Alfred Lothar, & Wegener, Kurt.

Vorlesungen über Physik der Atmosphäre. Leipzig. 1935. xii, 482 p. illus., diagrs. (1 fold.) 23 cm. "Literatur": p. 4-7.

## SOLAR OBSERVATIONS

### SOLAR RADIATION MEASUREMENTS DURING FEBRUARY, 1936

By IRVING F. HAND, Assistant in Solar Radiation Investigations

For a description of instruments employed and their exposures, the reader is referred to the January 1935 REVIEW, page 24.

Table 1 shows that solar radiation intensities averaged close to normal at all three Weather Bureau stations.

TABLE 1.—*Solar radiation intensities during February 1936*

[Gram-calories per minute per square centimeter of normal surface]

#### WASHINGTON, D. C.

Date	Sun's zenith distance										Local mean solar time
	8 a.m.	78.7°	75.7°	70.7°	60.0°	0.0	60.0°	70.7°	75.7°	78.7°	
	75th mer. time	Air mass									
e	5.0	4.0	3.0	2.0	*1.0	2.0	3.0	4.0	5.0	e	
mm	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	mm	
Feb. 5.....	1.60	0.63	0.80	0.98	1.30	-----	1.43	1.37	-----	1.60	1.5
Feb. 8.....	1.02	.81	.88	1.13	1.40	-----	-----	-----	-----	1.78	1.2
Feb. 10.....	1.32	.67	.75	.99	1.21	-----	-----	-----	-----	1.19	1.0
Feb. 28.....	2.74	.70	.90	1.11	1.31	-----	-----	-----	-----	2.49	1.1
Feb. 29.....	3.81	-----	-----	-----	1.05	1.25	(1.43)	(1.37)	-----	3.45	2.3
Means.....	-----	.70	.83	1.05	1.25	-----	(1.43)	(1.37)	-----	-----	-----
Departures.....	-----	.03	.00	+.04	+.05	-----	+.02	+.37	-----	-----	-----

#### MADISON, WIS.

Feb.	4	76	86	111	138	-----	150	-----	107	43	57	
Feb. 5.....	.28	.76	.86	1.11	1.38	-----	-----	-----	-----	43	81	74
Feb. 11.....	.51	.98	1.11	-----	-----	-----	-----	-----	-----	81	1.16	1.16
Feb. 14.....	1.68	-----	-----	1.45	-----	-----	-----	-----	-----	74	1.45	1.45
Feb. 18.....	1.02	-----	1.13	1.28	1.44	-----	-----	-----	-----	48	1.02	1.02
Feb. 19.....	.51	-----	.74	1.45	-----	-----	-----	-----	-----	64	1.02	1.02
Feb. 21.....	.79	-----	1.09	1.25	1.43	-----	1.42	-----	-----	86	1.02	1.02
Feb. 27.....	1.96	-----	-----	1.37	-----	-----	-----	-----	1.78	1.30	1.30	1.30
Feb. 29.....	2.16	-----	-----	1.36	-----	-----	-----	-----	1.88	1.27	1.27	1.27
Means.....	(0.86)	.99	1.21	1.41	(1.46)	-----	(1.46)	-----	-----	-----	1.45	1.45
Departures.....	-.07	-.08	+.01	+.06	-----	-----	+.19	-----	-----	-----	1.11	1.11

#### LINCOLN, NEBR.

Feb.	4	76	86	111	138	150	176	193	127	114	091	119	
Feb. 5.....	.43	-----	-----	1.20	1.53	-----	1.57	1.38	1.27	1.14	0.91	1.19	1.19
Feb. 6.....	.36	-----	-----	1.18	1.44	-----	1.15	.90	.71	.57	.89	1.68	1.68
Feb. 8.....	.71	-----	-----	-----	-----	-----	1.15	-----	-----	-----	-----	1.41	1.41
Feb. 7.....	.74	-----	-----	.84	1.10	-----	-----	-----	-----	-----	-----	1.46	1.46
Feb. 10.....	.46	-----	-----	1.22	1.46	-----	-----	-----	-----	-----	-----	1.41	1.41
Feb. 14.....	.30	-----	-----	1.28	1.38	-----	1.33	-----	-----	-----	-----	1.41	1.41
Feb. 17.....	.46	-----	-----	-----	-----	-----	-----	1.30	1.18	1.01	.56	1.32	1.32
Feb. 20.....	.81	-----	-----	.99	-----	-----	-----	-----	-----	-----	-----	1.32	1.32
Feb. 26.....	2.87	-----	1.16	1.30	1.48	1.67	-----	-----	-----	-----	2.36	2.36	2.36
Feb. 27.....	1.37	-----	-----	1.30	1.36	1.60	1.29	1.14	.94	.77	1.98	1.98	1.98
Feb. 28.....	3.45	-----	-----	.95	1.25	(1.64)	1.34	1.18	1.02	.87	4.57	4.57	4.57
Means.....	-----	1.13	1.15	1.39	(1.64)	1.34	1.18	1.02	-----	-----	-----	-----	-----
Departures.....	-----	+.11	-.02	+.02	+.10	+.01	+.02	.00	-.03	-----	-----	-----	-----

TABLE 1.—*Solar radiation intensities during February 1936—Con.*  
[Gram-calories per minute per square centimeter of normal surface]

BLUE HILL METEOROLOGICAL OBSERVATORY OF HARVARD UNIVERSITY

Date	Sun's zenith distance										Local mean solar time	
	75th mer. time	Air mass										
		A. M.					P. M.					
e	5.0	4.0	3.0	2.0	*1.0	2.0	3.0	4.0	5.0	e		
mm	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	mm		
Feb. 1.....	1.0	-----	0.63	0.78	-----	0.78	0.78	0.84	0.84	1.5	1.5	
Feb. 2.....	1.2	.96	1.07	1.19	1.45	-----	1.45	1.27	1.16	1.07	1.2	
Feb. 3.....	.7	.88	1.02	1.19	1.36	-----	1.36	1.29	1.11	.99	1.0	
Feb. 5.....	1.9	-----	-----	1.15	1.26	-----	1.32	1.24	1.14	1.04	1.7	
Feb. 6.....	7	-----	-----	1.14	1.27	-----	1.37	1.25	1.16	1.07	1.1	
Feb. 7.....	1.1	-----	1.14	1.27	1.27	-----	1.37	1.25	1.16	1.07	1.1	
Feb. 8.....	.9	.86	.98	1.14	1.27	-----	1.37	1.25	1.16	1.07	1.1	
Feb. 10.....	1.1	-----	-----	1.14	1.27	-----	1.37	1.25	1.16	1.07	1.1	
Feb. 11.....	1.1	-----	-----	1.14	1.27	-----	1.37	1.25	1.16	1.07	1.1	
Feb. 12.....	1.3	-----	-----	1.20	1.40	-----	1.42	1.32	1.21	.80	.8	
Feb. 19.....	1.0	-----	-----	1.20	1.40	-----	1.42	1.32	1.21	.80	.8	
Feb. 20.....	1.1	-----	-----	1.20	1.40	-----	1.42	1.32	1.21	.80	.8	
Feb. 21.....	1.1	.68	.87	1.14	1.26	-----	1.09	1.25	1.16	1.07	1.3	
Feb. 22.....	1.1	-----	-----	1.15	1.26	-----	1.33	1.25	1.16	1.07	1.4	
Feb. 23.....	1.0	-----	-----	1.15	1.40	-----	1.45	1.33	1.24	1.16	1.0	
Feb. 24.....	1.9	-----	-----	1.02	1.33	-----	1.39	1.25	1.16	1.07	2.3	
Feb. 28.....	1.9	-----	-----	1.05	1.36	-----	1.39	1.25	1.16	1.00	2.0	
Feb. 29.....	1.8	-----	-----	1.08	1.27	-----	1.23	1.07	.98	.92	2.3	
Means.....	-----	.90	.94	1.01	1.22	-----	1.26	1.15	1.11	1.01	-----	

#### LATE DATA

Jan. 4.....	3.4	1.00	1.15	1.22	1.29	-----	-----	-----	-----	-----	4.0
Jan. 6.....	3.2	-----	.82	1.03	1.24	1.33	-----	-----	-----	-----	4.2
Jan. 8.....	2.5	.87	1.03	1.24	1.33	-----	-----	-----	-----	-----	2.0
Jan. 10.....	5.0	-----	-----	1.15	-----	-----	-----	-----	-----	-----	5.7
Jan. 12.....	4.0	-----	-----	-----	-----	1.13	.97	.90	-----	-----	3.2
Jan. 14.....	1.5	.91	1.04	1.18	1.35	-----	1.36	1.18	1.03	-----	2.1
Jan. 16.....	3.8	-----	-----	.79	-----	1.39	1.29	1.14	.87	-----	2.2
Jan. 17.....	1.0	.92	1.04	1.18	1.39	-----	1.41	1.27	1.15	1.03	1.6
Jan. 20.....	1.5	-----	-----	1.04	1.45	-----	1.27	1.15	1.07	-----	1.5
Jan. 21.....	1.4	.86	.90	1.07	1.31	-----	1.27	1.15	1.07	-----	1.7
Jan. 22.....	2.4	-----	-----	1.07	1.27	-----	-----	-----			